Abstrak: In the article, the author seeks to show the importance of giving thorough consideration to manpower in all planning activities, to manpower in all planning activities, whether long or short term. He also emphasizes that manpower planning lies at the heart of all rational personnel activities, if they are to contribute as they should to the objectives of the organization. He outlines the elements of manpower planning, the main methods of forecasting demand and supply, both within and outside the organization and sets out the main elements of the manpower plan.

The Nature of Manpower Planning

It seems unlikely that there is a need to convince the readers of Long Range Planning of the necessity of planning in the management of organization. They will understand that plans provide the information base for management decisions. They will understand also that planning is a dynamic process. The objection to planning that unforeseen and uncontrollable external events can so invalidate plans as to make them pointless must be an argument that they themselves have frequently countered: the plans give a base from which adaptations to the new situation can be worked out, and positively help management to deal with such unexpected events.

 Nor will there be any need to elaborate the purpose of planning. By collecting together information about the past and using this in estimating the effect of various courses of action in the future, management is able to improve the quality of their decisions. Thus, the purpose of planning is, in the words of Lord Douglass of Cleveland, to make things change. It must expose the consequences of doing nothing, show what must be done and a wake the will to get it done. No sensible manpower planner or any other planner will expect his plan to come true in all its particulars. He will not only expect to have to adapt as unforeseen factors affect it, but he will also expect his management to base decisions on it and, in so doing, alter it.

The readers will also considerations of the short range plan probably linked to the budget for next year and the strategic matters covered in the long range plan. They will find the concept of rolling planning and review a normal one, covering year one in detail and subsequent years in lesser detail.

Finally, they will not be taken in by the argument, as some personnel specialist are, that planning manpower restricts free will. They will not see planning in general as a restrictive discipline, which prevents the use of initiative, but rather as a means whereby individual initiative can be channelled towards corporate objectives, and thus used to its full. Similarly, manpower planning allows the use of initiative within a known frame work of objective, and also aims to achieve those objectives within the scope of what the individuals in the organization are likely to do. There is a vast difference between forecasting what people will do and controlling what they do.

All these characteristics of planning in general apply to manpower planning, and are recognized in any good corporate plan. Manpower planning is thus no different from any other branch of planning. What may need justification, therefore, is the view that manpower planning needs special consideration, apart from the other elements of corporate planning. Manpower is a resource, and like other resources must be fully considered by management. The planning consideration applicable to manpower are similar to the planning considerations applicable to other resources, but they do differ considerably in degree. The most obvious difference is that the resource of manpower, individually and to some extent collectively, has minds of their own. Plant which figures in a particular plan may blow up or burn down. The plan probably does not allow for this, partly because it is normally very unlikely and partly because insurance is carried against such disasters. But manpower may leave, almost literally walking out of the plan, of its own volition. It would be a useless manpower plan which did not allow for the eventuality of labour turnover, and it would be a strange insurance company who would insure the company against this happening.

Collectively, too, the resource of manpower may decide to go on strike. This eventuality has frequently been ignored in management plans, with the result that they have arranged their production lines in such a way that even a small number of workers can shut down the whole plant – or even, as in the car industry, other plants as well. Whether as in the car industry, other plants as well. Whether as in the car industry, other plants as well. Whether the workers’ grievance is justified or not, it is strange that managements have presented them with so much power.

Manpower may be scarce or abundant, like other resources. In some circumstances, some types, such as skilled filters, may be scarce, whereas others, such as labours, may be abundant. Thus, manpower cannot be considered just as ne resource, but as a collection of many resources. Yet manpower is more adaptable than many other resources. It is possible to retrain. It is possible to persuade men to move from one place to another. What is more, men will
themselves take action to prepare them selves for certain types of jobs, if they have the information about future job opportunities to make their own plans.

If an organization intends to adapt manpower resources by training, it must, of course, plan for the cost of doing this and for the time it takes. On the other hand, a company may elect to buy in ready trained manpower, rather like bought in components. If it does so, it may well affect labour market costs, and it must allow for this in its plans.

It is, however, probably the very adaptability of manpower which has militated against proper manpower planning. It is possible to use the wrong manpower for example, highly qualified in relatively menial jobs – or to provide a crash course of rudimentary training. It is possible to recruit quickly in all but the tightest of labour markets. Until recently, it has also been easy to discard manpower which was surplus to requirements. This last, through the pressure of public opinion and of the law, is becoming less easy, and this fact in itself may force managements to think more carefully about manpower for example, highly qualified in relatively menial jobs – or to provide a crash course of rudimentary training. It is possible to recruit quickly in all but the tightest of labour markets. Until recently, it has also been easy to discard manpower which was surplus to requirements. This last, through the pressure of public opinion and of the law, is becoming less easy, and this fact in itself may force managements to think more carefully about manpower resources. They have always stood to lose a considerable amount in trying to sell off surplus machinery, they now may lose quite a lot in discharging surplus men.

There are clearly a number of complex problems in planning manpower. Even the cost of manpower is not necessarily a simple matter. The rate of inflation of earnings recently, for example, has been far above the general rate of inflation in the price of goods, and forecast of manpower costs must take this into account. Nor can one rely on a continuing supply of manpower to do particular types of job merely through the medium of pay. Some types of work may become unacceptable. Some types of work may become unacceptable. The switch of Swedish car manufacturers from production lines to the team building of cars costs them more money, but they have done it because they believe that, in the near future, they will be unable to get people to work on production lines. They accept extra costs now, for survival in the future.

THE OBJECTIVES OF MANPOWER PLANNING

Manpower planning thus needs special consideration. However, it is inherent in manpower decisions that they cannot be made in isolation. They are not merely the concern of the personnel director. Manpower costs money and different types cost different amounts. Capital investment may be involved. Changed marketing strategies may affect the type of man and women needed in the sales team. Manpower considerations may dictate changes in production systems, as for Swedish car manufacturers. Finance, sales and marketing directors – indeed, all functions have a concern for manpower planning. Furthermore, since the decisions to be made are at the interface between normal functions within the company, manpower planning is the concern of the board of directors as a whole.

Thus, the prime objective of manpower planning is to incorporate the planning and control of manpower resources into company planning, so that all resources are used in the best possible conjunction.

The second objective is to co-ordinate all company manpower policies. Managers throughout the company are continually making decisions which affect manpower. Recruitment, training and negotiating decisions will be made whether there is a plan or not. Budgets will include wage costs. For these decisions to be harmony, a plan is needed.

To achieve these two complementary objectives, it is necessary to translate the organization’s plans into the personnel activities which make them achievable. This translation requires an understanding of the organization’s manpower situation and an ability to make forecast which stem from an analysis of manpower and manpower trends.

THE ELEMENTS OF MANPOWER PLANNING

There are five elements of manpower planning:

1. Systematic analysis of manpower resources.
2. Forecast of manpower demand.
3. Forecast of manpower supply.
4. Reconciliation, within the financial and other restraints imposed by the organization’s circumstances.
5. Plans for action.
Figure 1 shows how these elements fit together. With the background of the analysis of manpower now and in the recent past, the objectives of the company, set out in the business plan, are examined and a forecast of manpower demand is derived from them. If it is to be helpful in guiding action, this forecast must be more than just a total number. It must be divided into various manpower categories.

The supply of manpower available from within the company, similarly divided into categories, is also forecast on the basis of analysis of past rates of staff retention and patterns of promotion and transfer.

These are forecasts only: they are predictions of what will happen on a certain set of assumptions, which should be stated so that they can be altered either through management decision or in the light of subsequent events. For these forecasts to give rise to action, plans must be made to achieve a reconciliation between the demand and supply forecasts.

Usually, there will be a need to recruit and this has to be examined in the context of the probable state of the labour market. This requires a forecast of external manpower supply.

The reconciliation must also be achieved within constraint imposed by the budget, which also stems from the business plan. The budget, however, is not independent of the manpower planning process, for, manpower costs from a part, possibly a major part, of it. Therefore, there is an input to the budget, which in effect brings together and co-ordinates all the organization’s activities and financial level. Because manpower planning provides an input to the budget, but also may be modified by it, it is essential that the two processes are co-ordinated and that their timetables correspond.

When the most suitable means of reconciliation are decided, the actions entailed from the manpower plan and, in this way, the planning and control of manpower resources is incorporated into company planning the first objective of manpower planning.

The plans for action will cover utilization of manpower and programmes for improving it, the supply of manpower, covering recruitment, promotion, internal mobility and possibly redundancy training of new and existing employees to prepare them for the jobs planned, and the general personnel policies necessary to recruit and retain staff, including condition of work, remuneration and industrial relations. In fact, the plan covers virtually all the aspects of the personnel function, and co-ordinates them with each other and with the organization’s business plan the second objective.

Within this framework, some of the methods and problems of manpower planning can be examined in a little more detail.

FORECASTING MANPOWER DEMAND
The forecast of manpower demand must be based on the organization’s plan. It follows, therefore, firstly that the manpower planner must be fully aware of what these plans are. Thus, the personnel manager must be brought into the company’s planning decisions, if he is not the company’s planning decisions, if he is not involved already. Secondly, a means of translating the plans into manpower requirements must be found. These means will undoubtedly be found by the analyses carried out in the company itself. It is not possible to provide a standard means of making the forecast.

The degree of complexity in the forecasting method will depend on a number of factors, the complexity of the organization itself, the margin of error acceptable in the particular circumstances, the sophistication of top management, who must understand and use the forecast. Initially, however, the major determinant is likely to be the data available.

Manpower data, in suitable categories, may not be available. When this data has to be allied with some production or cost information, the likelihood of the two sets of data being in a congruent form is low. Therefore, the first step will often be to set up the data recording systems. To reinforce this impetus behind the data collection, it is suggested that the calculated risk of beginning on rudimentary manpower planning, using such data as there are, should be taken. Manpower decisions will be taken anyway, and may be improved by this course, but without a clear us for the data there is a danger that the system for collecting them will founder.

There are two main factors to be analysed for demand forecasting:
1. The volume of output will, directly or in directly, affect manpower demand (the analysis of performance).
2. The level of productivity may also change and affect the forecast (the analysis or productivity).

In the real situation these two factors are closely interwoven, but conceptually they may be examined separately.

Performance
The basis of all analyses is what has happened in the past and this is true even of the intuitive forecast of the experienced manager, who is after all only using his experience. A simple way of analysing past demand for manpower is to relate it to some output indicator by means of a ratio. The ratio of men to output may, of course vary both in accordance with the amount of output and in accordance with changes in output per man over time, i.e. with changes in performance and in productivity.

For the moment let us concentrate on performance. The ratio may be constant, with 200 men producing twice as much as 100 men. However, it more likely that the ratio will change with volume and regression analysis will be needed to analyse one variable against the other output. But manpower is not necessarily dependent on one
variable only and multiple regression analysis may be needed to relate manpower to a number of variables and measure the importance of each. Such technique analysis directly the past relationship between manpower and output. Indirect analysis may be more appropriate, using work study measurements, which are derived from analysing work in the past, and applying them to the work to be done in the future. This method will suit production lines and other similar situations where manning standards can be established well in advance.

In association with such techniques, the views of managers are important because they are in control and will by their actions affect the demand for manpower.

**Productivity**

As well as change in the work load, manpower demand can change through improved productivity. One hopes that this will show an improvement over time, but it is often helpful to distinguish between the technological” change resulting from improved machinery and usually entailing capital investment, and the better utilization of manpower, which is more likely to manifest a steady improvement as time passes.

Improvement of utilization is important in itself, but the manpower forecasting requires an estimation of how much it will improve in the future. It has already been pointed out that ratios may change over time and this can be analysed by regression of the ratio against time, just as the manpower output relationship can be analysed.

It may be that the improvement in productivity on any particular activity cannot be indefinitely sustained. In fact, it seems likely that early gains will be greater than later ones. Such as realationship was discovered on aircraft production during World War II and is known as the “learning curve”. This form of curve may be useful in analysing the progress of productivity.

Whether such indices are available or not, it is important that forecasts of manpower demand are assessed by management for expected changes in productivity. It may help if they indicate the various factors which they expect to effect the improvements and assess them separately.

**FORECASTING INTERNAL MANPOWER SUPPLY**

Against this forecast of demand, it is necessary to examine the supply of manpower likely to be available within the organization. Primarily, this is likely to be a question of retention of staff (the converse of labour turnover). However, it is also concerned with how the existing staff will change in the future, for example, by promotion or internal transfer.

**Retention**

The usual method of measuring labour turnover is the “BIM index” the percentage wastage rate. This express leavers in a given period as a percentage of the average staff in post. However, this method takes no account of the characteristic of the work force known empirically to have in normal circumstances the most significant effect length of service.

This defect makes the normal index unsuitable for assessing morale. Totally different leaving pattern can give the same index figure. It also makes it unsuitable for forecasting, since the trend of the index is meaningless because changes over time can be completely overshadowed by changes in the length of service distribution.

For forecasting, the ordinary index can be very misleading. In a period of heavy expansion, with considerable recruitment, the index will normally rise, because short – service staff are more likely to leave. When recruitment is cut back, the leaving rate is likely to fall : this can be most important if a reduction in numbers is a part of the manpower plan.

Therefore, a method of measuring and forecasting staff retention which is service specific is needed. Two basic methods are possible :

1. The “cohort” method examines the progress of an entry group, i.e.a homogeneous group who joined in a given period, and plots a survival curve for this group. This can be useful in examining some groups of staff but has some disadvantage. In particular, it is not readily transferable from one cohort to another, partly because it may be necessary to follow one cohort for a considerable time to fully explain its pattern of survival. For forecasting, the ordinary index can be very misleading. In a period of heavy expansion, with considerable recruitment, the index will normally rise, because short – service staff are more likely to leave. When recruitment is cut back, the leaving rate is likely to fall : this can be most important if a reduction in numbers is a part of the manpower plan. Therefore, a method of measuring and forecasting staff retention which is service specific is needed. Two basic methods are possible :

2. The census method overcomes this by concentrating on the length of service of leavers in a particular period (last year) and relating the number of leavers in each length of service group to the average number of employees in that group. In effect, it combines the experience of all cohorts in the last year, thus giving a better picture of the situation than the labour turnover index.

It will be readily understood that a method of analysis like the “census” method can be easily used for forecasting, for the present service distribution of staff is known and the recruitment of future employees is a part of the forecast. Thus, retention of employees can be forecast.

**Internal Movements**

Promotion, demotions and transfers are also part of the internal supply forecast. In a “career” organization, promotion pattern may be almost more important than retention.

Analysis of promotion patterns can be useful not only from the point of view of making the internal supply forecast, but also as a means of revealing the nature of existing or future problems. Promotion opportunities are of vital importance to many
categories of employees, and they will not be content unless they can progress. Furthermore, they will build up an expectation of promotion rates and, if their opportunities decrease, they will feel unfairly treated. Indeed, in some organizations the management’s sense of fairness tends to ensure that the existing promotion pattern persists even when the demands of the work do not fully justify more promotions.

Whilst this may seem obvious, promotion rates are not often given full consideration and rarely analysed. How often do companies advertise for outstanding staff and talk about their “young”, dynamic management team. A much better advertising ploy for attracting potential recruits aware of manpower planning might be old, tired management team, ready to listen to new ideas and delegate responsibility.

The analysis of promotion can concentrate on the availability of jobs at different levels and the consequent chain reaction of filling them. This can be regarded as the “pull” of vacancies moving employees through the various levels. Methods of analysis derive from renewal theory, which analyses the probability of leaving and of being promoted. Alternatively, the “Markov chain” analysis shows the pattern of promotions in the past and assumes the persistence of this pattern, as though management “pushed” staff through their careers.

Whether or not the size of the organization justifies such analyses, it will be important in most companies to consider promotion probabilities and the effect of planned changes on them. It will also be necessary, if expansion is planned, to consider the likely availability of staff for promotion into newly created management jobs.

Similarly, internal movements of staff between departments or divisions may justify analysis.

INTERNAL MANPOWER SUPPLY

It is part of the manpower planner’s task to assess (“forecast” is probably too grandiose a word) the labour market situation. To do so, he needs to assess not only the size of the appropriate labour force in the appropriate area, but also the demand for it from other employers. In the main, the basic data for such an assessment does not exist, although the Employment Services Agency has begun “local labour market intelligence” experiments in some areas.

Without this supply of intelligence, it is necessary to estimate on the basis of whatever is available. Information about school leavers, university graduates, activity rate (i.e. proportion of women who work) all these are available historically, although forecasts of numbers coming out of the education system are not as readily available as one might expect.

In the longer term, the trends in the general manpower environment can be significant. The effect of the raising of the school leaving age was clear and noticeable. But the trend for children to stay longer at school without compulsion, and the school-leaving age was clear and noticeable. But the trend for children to stay longer at school without compulsion, and to gain more qualifications, is also worth considering. Trends in education are a consideration in many long term manpower plans.

Equal pay legislation also is noticeable. But other trends – to earlier marriage, fewer children, demand for promotion by women – may have a significant effect on the labour market. Hours of work may be important to the manpower demand forecast and these are affected by social demand and trade union attitudes. Trends in pay and the effect of inflation on it are important, since the cost of manpower is a major derivative of the manpower forecast and crucial to the task of fitting manpower into the overall budgetting exercise of the company.

THE MANPOWER PLAN

The manpower plan is the action plan deriving from the analyses and forecasts of manpower. It is the result of management decisions based on the forecasts of demand for manpower, the supply of manpower and the costs involved.

The first item of the plan is manpower supply. In most situation, recruitment will be necessary and a well thought out recruitment plan will be laid down. Promotion policies may need adapting, with all the implications for morale which that can entail. Transfer policies may also be reconsidered.

Alternatively, there may be a need to run down the strength and plan to do this effectively, whether or not redundancies are entailed, must be made. All these measures are designed to affect the manpower supply.

The second item is manpower utilization. The plans to achieve the forecast level of improvement must be made. However, the reconciliation of the demand and supply forecasts may entail further improvements, requiring exceptional plans, possibly even demanding capital investment in plant.

The third item is training, and these plans stem from the first two. Recruitment plans entail induction training, promotion plans affect management training and management development schemes. Improved utilization may in itself result from training, or new equipment may give rise to a training need.

The final item is personnel policies, which are all connected with recruiting and retaining staff, to a greater or lesser extent. Salary rates affect recruitment and retention. The motivating effect of the job redesign or other similar changes. Industrial policies and thus to manpower plans, for they must be achievable in the context of the industrial relations situation. Conversely, only a negotiator who is backed by a proper manpower planning system can face a trade union equipped to make decisions which accord as nearly as possible with overall company
objectives. The manpower plan provides the base for industrial relations objectives and they form a part of the manpower plan.

All these plans cost money. Just employing people costs money. All the activities planned must be costed and form a part of the budget. If the cost is more than management is prepared to expend, some re-thinking must take place. manpower plans must be revised. It may even be that it seems impossible to supply the manpower demand, either absolutely or within the company’s financial constraints. In other words, the company’s objectives cannot be fulfilled, and they must themselves be revised.

THE LONG AND SHORT TERM

The distinction between the short term plan, linked to the budgeting process, and the long term plan, linked to the corporate planning process, has already been made. The line manager’s concern is essentially with the short term, and he is judged on his results. He is, therefore, directly concerned with work load and manning in the immediate future. He may need the knowledge and advice of the manpower planner, deriving from the manpower analyses, but he should be co-ordinated with the general budgeting exercise, so that he does not divorce the consideration of men and costs from each other. He must also have a basis of knowledge of the company objectives as they affect him.

The long term plan, however, is more relevant to the strategic decisions of top management. Here, therefore, the forecasts should be the manpower planner’s. line managers’ advice may help, but they will need a forecast to comment on if their contribution is to be effective. On the financial side, the interaction is not with budgeting but with corporate planning.

The long and short terms plans do, of course interact on each other. The short term work will generate a great deal of detailed information which can be used as the basis for longer term forecasting. But the results of the short term planning work must be viewed by management in the longer term context. The short term expedient of, for example, stopping all recruitment because of a trade recession, may in the longer term result in shortages of staff with the experience and maturity to become middle managers. Thus, it may be best, as recommended by Mr. D. E. Hussey for corporate planning generally, to separate the preparation of long term plans and annual budgets, and to use the plan to give strategic direction to the budget and to provide targets as criteria against which budgets may be judged.

Thus, budgeting and the corporate plan has manpower as a major element. Manpower considerations must be considered alongside financial, materials, marketing and sales plans. In each area the appropriate expert should have information and advice to offer to organization’s top management. In the manpower area, as no doubt in other, it is essential that the organization’s manpower experts that is, the personnel department-are deeply involved in the planning process, because they will be involved in the monitoring and control of the short term plan, and because their activities are the very stuff of the long and short term manpower plans, their actions are co-ordinated with company objective through the plan.

REFERENCE